

REMARKS

In the Office Action mailed May 20, 2011, the Examiner rejected claims 32-36, 40, 42-48 and objected to claims 39, 52 and 53. By way of the foregoing amendments and the markings to show changes cancelled 1-31, 37-38, 41, and 49-51; currently amended 32, 34-36, 46, and 48; and new 54-57. The foregoing amendments are taken in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled in view of the prior art.

Further, by the present amendment, it does not follow that the amended claims have become so perfect in their description that no one could devise an equivalent. After amendment, as before, limitations in the ability to describe the present invention in language in the patent claims naturally prevent the Applicants from capturing every nuance of the invention or describing with complete precision the range of its novelty or every possible equivalent. See, Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 62 USPQ2d 1705 (2002). Accordingly, the foregoing amendments are made specifically in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicants would otherwise be entitled.

I. Telephonic Interview

Applicant would like to thank Examiner Camie Thompson for the time and courtesy extended on to Applicant's Representative Daniel Aleksynas during a telephonic interview conducted on June 13, 2011. In that interview claims 32 and 46 were discussed in view of the amendments presented herein and the Examiner indicated that claims 32 and 46 overcame the rejections of record.

II. New Claims

Applicant has added new claims 54 to 57. No new matter has been added. Support for the new claims can be found in U.S. Patent Application Publication No. 2008/0241576 in paragraphs 0012, 0014, and 0015.

III. Claim Rejections – 35 U.S.C. § 112

The office action rejected claim 35 and 48 as being indefinite under 35 U.S.C. § 112, second paragraph. Applicant has amended claims 35 and 48 to add a comma between the term “porous” and “fibrous.” Applicant believes that claims 25 and 48 are now clear and Applicant respectfully requests that the rejections be withdrawn.

IV. Claim Rejections – 35 U.S.C. § 103

The office action rejected claims 32-36, 40, and 42-48 under 35 U.S.C. § 103 as being unpatentable over FR2356509 (hereinafter “FR509”) in view of JP2963070 (hereinafter “JP070”).

A. Lack of Fact Finding

The office action has failed to perform fact finding as to each and every element of claims 32 and 46. The office action has not performed fact finding demonstrating where FR509 or JP070 teaches “comprises from about 15% to about 65% by weight epoxy resin”; “wherein the resulting composite has a flexural modulus as measured by ASTM D790/ISO 178 from 200 mPa to 700 mPa”; and “wherein the at least two surface layers are matching internal and external structures, and the at least two surfaces are tubes.”

The office action has not performed fact finding for claim 35, which states, “in which the surface layers are porous, fibrous, or both.” The office action has not performed fact finding for claim 40, which states, “in which the surface layers are of a metal that includes aluminum.” The office action has not performed fact finding as to claim 42 which states, “in which the composite is part of a construction building or a transportation vehicle.” The office action has not performed fact finding as to claim 43, which states, “in which the composite is configured to provide reinforcement against crash in vehicles.” The office action has not performed fact finding as to claim 44, which states, “in which the composite is configured to provide automotive door reinforcement.” The office action has not performed fact finding as to claim 45, which states, “in which the composite is configured to provide strength in a sporting good.” The office action has not performed fact finding for claim 48, which states, “in which the surface layers are porous, fibrous, or both.” The office action has not performed fact finding for claims 54-57. Applicant does not believe that the office action has presented a *prima facie* obviousness rejection, and Applicant respectfully requests that the rejections be withdrawn.

B. Facts not Supported by Substantial Evidence

The office action alleges that JP070 provides a basis for the rejection; however, the rejection is not supported by substantial evidence. The office action has failed to provide support as to where JP070 teaches the elements, which the office action seeks to rely upon. See MPEP 706.02II RELIANCE UPON ABSTRACTS AND FOREIGN LANGUAGE DOCUMENTS IN SUPPORT OF A REJECTION. One relevant portion of the MPEP states:

Citation of and reliance upon an abstract without citation of and reliance upon the underlying scientific document is generally inappropriate where both the abstract and the underlying document are prior art. See *Ex parte Jones*, 62 USPQ2d 1206, 1208 (Bd. Pat. App. & Inter. 2001) (unpublished).

This section goes on to state: "

To determine whether both the abstract and the underlying document are prior art, a copy of the underlying document must be obtained and analyzed. If the document is in a language other than English and the examiner seeks to rely on that document, a translation must be obtained so that the record is clear as to the precise facts the examiner is relying upon in support of the rejection. (emphasis added)

This information has not been provided by the Examiner; thus, Applicant does not believe that a proper *prima facie* obviousness rejection has been presented. Applicant respectfully invites the Examiner to present a full text translation of JP070.

C. Result Effect Variable

The office action alleges the amount of epoxy resin in the core is a result effect variable. Applicants traverse this rejection and Applicant believes that the office action has not presented the proper analysis to show that the amount of epoxy resin in the core is in fact a result effect variable. The court in, *In re Antonie*, 195 U.S.P.Q. 6 (1977 CCPA), rejected an examiner's argument that "efficiency (degree of purification)" was affected by changing "hydraulic loading" of a wastewater treatment plant. The court in rejecting the examiner's finding of a result effect variable states that "[t]he property is that the described devices designed with the ratio will maximize treatment capacity regardless of the values of the other variables in the device." Id. at 8 (emphasis added). The court stated that "It is impossible to recognize, from the experiment taught by El-Naggar, that 'treatment capacity' is a function of 'tank volume' or the tank volume-

to-contactor area ratio." Id. at 8. The court then went on to state that, "Such functionality can only be determined from data representing either efficiency at varying tank volume, fixed throughput, and fixed contactor area or throughput at varying tank volume, fixed efficiency, and fixed contactor area. Each of these experiments represents treatment capacity with fixed contactor area but varying tank volume." Id. at 8.

The fact scenario is similar to that of the present invention. In Antoine, the examiner rejected the claims stating that this one variable would be obvious to adjust so that the process is maximized. Here the office action is alleging that by adjusting the amount of epoxy resin in the core the degree of rigidity and strength of the structure could be controlled. In Antoine, the court found that treatment capacity could be controlled by a multitude of factors and that hydraulic loading is not the only variable that affects efficiency. The court then listed multiple different ways to control efficiency by holding some variables constant and adjusting others; therefore, the court found that this one variable was not a result effect variable and, thus, the claims were not obvious. In the present case, there are a multitude of different things that can affect rigidity and strength of the structure. One such example is the type of epoxy resin. Other such examples, to name a few include, a thicker surface layer, changing the materials of the surface layers, the shape of the structure, and the density of the foam are other factors that may affect the rigidity and strength of the structure, and the office action has not addressed how any of these factors influence the strength and rigidity of the structure. Without performing this analysis Applicant does not believe that the Examiner has established that the amount of epoxy resin is a result affect variable. Applicant respectfully invites the Examiner to perform this analysis. Applicant believes that the office action has not presented a *prima facie* case of obviousness and respectfully request that the rejections be withdrawn.

D. Improper Application of KSR

Under *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007) in light of *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), Applicants believe that a proper 35 U.S.C. § 103 rejection was not made. Although the teaching-suggestion-motivation (TSM) test requirements as applied in KSR have been altered to be applied in a less rigid manner, no explanation has been made showing the reasoning to combine FR509 and JP070. The Court in KSR said:

Often, it will be necessary...to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

KSR, 82 USPQ2d at 1395 (emphasis added). Even under KSR where the TSM test is applied less rigidly: (1) there is no TSM to combine them, (2) there was no apparent reason to combine the elements, and (3) no explicit analysis was made.

The office action has failed to present any explicit facts as to why FR509 and JP070 are combinable. For example, a translation of JP070 has not been provided; thus, Applicant does not believe that the requisite analysis is even possible. Applicant respectfully invites the Examiner to perform this analysis.

V. Allowed Claims

The office action indicated that claims 39 and 52-53 are allowable if rewritten in independent form. Applicant thanks the Examiner for the indication of allowability; however, Applicant believes that claims 32 and 46 which these claims depend are now allowable; thus, Applicant has not written these claims in independent form at this time.

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CONCLUSIONS

In view of Applicants' amendments and remarks, the Examiner's rejections are believed to be rendered moot. Accordingly, Applicants submit that the present application is in condition for allowance and requests that the Examiner pass the case to issue at the earliest convenience. Should the Examiner have any question or wish to further discuss this application, Applicant requests that the Examiner contact the undersigned at (248) 292-2920.

If for some reason Applicant has not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge our Deposit Account No. 50-1097 for any fee which may be due.

Respectfully submitted,

Dated: Aug 19, 2011

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